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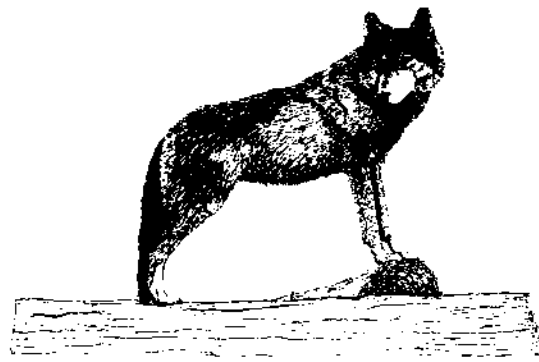
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S T A T U S

R E P O R T

Endangered &

Threatened



Washington Department of Wildlife

Endangered

WASHINGTON STATE

Leatherback Sea Turtle — *Dermochelys coriacea*
 American White Pelican — *Pelecanus erythrorhynchos*
 Brown Pelican — *Pelecanus occidentalis*
 Aleutian Canada Goose — *Branta canadensis leucopareia*
 Peregrine Falcon — *Falco peregrinus*
 Sandhill Crane — *Grus canadensis*
 Snowy Plover — *Charadrius alexandrinus*
 Upland Sandpiper — *Bartramia longicauda*
 Spotted Owl — *Strix occidentalis*
 Sperm Whale — *Physeter catodon*
 Gray Whale — *Eschrichtius gibbosus*
 Finback Whale — *Balaenoptera physalus*
 Sei Whale — *Balaenoptera borealis*
 Blue Whale — *Balaenoptera musculus*
 Hump-backed Whale — *Megaptera novaeangliae*
 Right Whale — *Balaena glacialis*
 Gray Wolf — *Canis lupus*
 Grizzly Bear — *Ursus arctos horribilis*
 Sea Otter — *Enhydra lutris*
 Columbian White-tailed Deer — *Odocoileus virginianus leucurus*
 Mountain Caribou — *Rangifer tarandus caribou*

Threatened

WASHINGTON STATE

Oregon Silverspot Butterfly — *Speyeria zerene hippolyta*
 Western Pond Turtle — *Clemmys marmorata*
 Green Sea Turtle — *Chelonia mydas*
 Loggerhead Sea Turtle — *Caretta caretta*
 Ferruginous Hawk — *Buteo regalis*
 Bald Eagle — *Haliaeetus leucocephalus*
 Pygmy Rabbit — *Brachylagus idahoensis*

DEFINITIONS

Endangered Species

Wildlife species native to the state of Washington that are seriously threatened with extinction throughout all or a portion of their ranges within the state.

Threatened Species

Wildlife species native to the state of Washington that are likely to become endangered within the foreseeable future throughout their ranges within the state without cooperative management or the removal of threats.

Candidate Species

Wildlife species that are under review by the Department of Wildlife for possible listing as endangered, threatened, or sensitive.

Extinction of a species is the *complete* elimination of the species from the face of the earth.

Extirpation is the elimination of a species from *portions* of its former range.

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Illustrations by Siobhan Sullivan



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WASHINGTON
 DEPARTMENT OF WILDLIFE
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Introduction

The Program

The Washington Department of Wildlife Nongame Program was established in the 1970s to manage, preserve and protect the state's nongame wildlife species. Within the Nongame Program, there are Endangered Species, Survey and Inventory, Nongame Preservation, and Nongame Data System programs. Together with regional field staff, they work to classify, monitor, and restore populations of endangered and threatened species. These activities are funded primarily through the sale of personalized license plates.

Classification

There are 28 species classified as endangered (21) or threatened (7) in Washington. An endangered species is "seriously threatened with extirpation throughout all or a significant portion of its range" in Washington. A threatened species is "likely to become an endangered species within the foreseeable future without cooperative management or removal of threats". Species federally classified as threatened or endangered are also included in the state lists and are protected by Washington law.

The process the department uses to list or delist species as endangered, threatened or sensitive is defined in WAC 232.12.297. A list is maintained of candidate species which are those that will be reviewed for possible listing as endangered, threatened, or sensitive. During 1992, the program will develop status reports for six candidate species: Oregon silverspot butterfly, pygmy rabbit, western pond turtle, larch mountain salamander, Canada lynx, and western gray squirrel. Following a public review period, the draft reports and classification recommendations will be finalized and presented to the Commission for consideration.

Recovery

Restoring species populations to self-sustaining levels is the greatest challenge for the program. Recovery plans must be developed which set target population objectives and outline a recovery and protection strategy to get the species off the list. Thirteen of the listed species have recovery plans. A recovery plan biologist was hired in 1991 to develop recovery plans for the eight remaining species and species which become listed in the future. All species currently listed are to have recovery plans by 1995. The first plans developed will be for species with critically low numbers nearing extirpation: the upland sandpiper, snowy plover, western pond turtle and pygmy rabbit. Federal recovery plans for the bald eagle, peregrine falcon, Aleutian Canada goose, mountain caribou, grizzly bear, and Columbian white-tailed deer were being revised and updated during 1991.

How long it takes to recover a species depends on the species and the factors that threaten its viability. Recovery strategies are expensive, complex and usually untested. They may include habitat protection and/or restoration, providing linkages and corridors for dispersal and movement, protection from killing, population augmentation and control of introduced predators or competitors. Most species have required 15 to 20 years of intensive management to reach recovery goals. Successful efforts nearly always depend on a great deal of cooperation among local, interstate and international wildlife and land management agencies, and private individuals and organizations.

Accomplishments

The department acquired 16,000 acres of habitat during 1991 to protect important sites for the peregrine falcon, bald eagle, Oregon silverspot butterfly, pygmy rabbit, western pond turtle, ferruginous hawk and candidate species sage and sharptail grouse.

Restoration efforts led to downlisting of the Aleutian Canada goose and evaluations for possible downlisting of brown pelican, bald eagle, Columbian white-tailed deer, peregrine falcon, and gray whale. A decision was made to pursue recovery of the grizzly bear in the North Cascades, wolves were documented in Washington for the second consecutive year, and sea otter numbers increased by 30%.

Six permanent and temporary personnel were added to Nongame program staff to develop recovery and bald eagle management plans, and for spotted owl management and data compilation.

Critical Populations

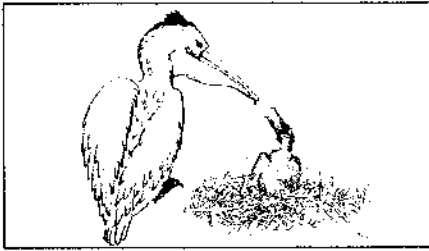
Seven species, the Oregon silverspot butterfly, western pond turtle, white pelican, upland sandpiper, sandhill crane, snowy plover, and pygmy rabbit, have critically low, declining, or extirpated populations.

The department was petitioned during 1991 to list the Canada lynx as an endangered species. This was the first petition to be received and processed under the new listing rules. The petition was evaluated, determined to warrant a review, and the lynx was designated a candidate species.

Two Washington species, the marbled murrelet and snowy plover, have been proposed for federal listing as threatened.

Eleven species that occur in Washington were added to the proposed federal Candidate 2 species list in 1991: pygmy rabbit, fisher, northern goshawk, black tern, harlequin duck, loggerhead shrike, mountain quail, red legged frog, Cascades frog, and spotted frog. These are species for which information indicates that federal listing as endangered or threatened may be appropriate, but conclusive data are not currently available to support proposed listing.

Endangered

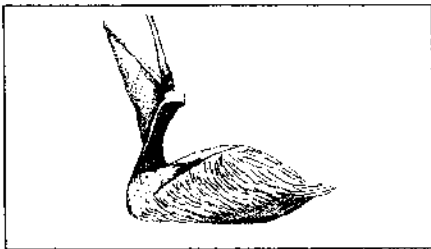


White Pelican – Washington's Columbia Basin again attracted hundreds of white pelicans during summer 1991. Although surveys were not

as extensive as in 1990, counts in most areas were only slightly less than in 1990. The Umatilla National Wildlife Refuge held over 200 pelicans while the McNary refuge and the Hanford Reach each had over 100 birds. These numbers are encouraging, but there are still no signs of nesting in our state.

Washington's recent breeding season influxes of white pelicans are partially due to problems for the birds in other areas. At Oregon's Malheur and Klamath Basin areas, there were die-offs of large numbers of white pelicans due to starvation. Many of the birds that spent spring and summer 1991 in Washington might have remained in Oregon if conditions had been normal. Washington's white pelicans, however, come from a variety of places. Two wing-marked birds from British Columbia were sighted on Moses Lake in fall 1991.

The last documented records of pelicans nesting in Washington were in 1926. The major reason for the loss of white pelicans as breeders was the destruction of nesting habitat through land reclamation and irrigation projects. Recovery potential for the species in our state is good. Recovery efforts will involve protecting suitable nesting habitat from disturbance and re-establishing nesting birds. Department biologists will use decoys to attempt to attract birds to suitable nesting islands in 1992.



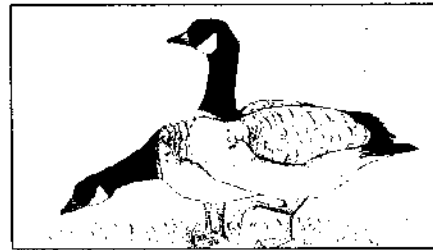
Brown Pelican – A new record 7,613 brown pelicans were seen along the Washington coast during September 1991 surveys by the

U.S. Fish and Wildlife Service (FWS). This was an increase of 2,633 from the 4,980 pelicans observed during 1990 surveys. The majority, 6,176 birds, were in Willapa Bay and others were observed along the coast as far north as Dahdayla Island, west of Forks.

The brown pelican became a federally endangered species when populations nationwide were drastically reduced in the

'70s due to chemical pollutants such as DDT and DDE. Brown pelicans have not historically bred in Washington, but they do migrate through and winter here. In recent years, we have been seeing more brown pelicans, in more places, and for longer periods of time in our state. The increase in pelican numbers in Washington is the result of several factors. With protection and removal of chemical pollutants from the environment, pelican populations are increasing. As a result, there are more nonbreeders and failed nesters in the California population and they are the most likely to disperse further north to Washington. Increased numbers of brown pelicans also disperse northward during El Nino years.

As brown pelican populations continue to recover, the FWS is evaluating the species for reclassification from endangered to threatened status. The contribution that Washington can make to the recovery of the species is to provide secure habitat for migrant and wintering populations. To help achieve this, the department is using information on pelican numbers and distribution to formulate plans to protect the birds from the impacts of oil spills.



Aleutian Canada Goose – The Aleutian Canada goose, which uses Washington habitats in the Willapa Bay and Lower Columbia

River areas during migration, has been the focus of a 20-year recovery program. There has been intensive management on both the breeding and wintering grounds. The wild population has increased from about 800 in 1975 to more than 7,000 birds in early 1991. Reintroductions have increased the distribution of breeding birds from one to seven islands. Foxes, introduced predators which nearly decimated the goose populations, have been removed from nesting islands. Recently, predation by bald eagles has proven to be detrimental in establishing geese on some islands in the Aleutian chain.

Protection of the wintering flock through hunting closures and habitat acquisition significantly reduced the degree of threat to the species and it was reclassified to a threatened, rather than endangered, species in 1991. The recovery plan was revised in 1991 and the birds will continue to be protected and managed until reaching delisting goals.

Endangered



Peregrine Falcon – Peregrine falcons continue a slow, steady recovery in our state through a combination of natural recolonization and reintroductions. In 1975 there was only one known pair in the state. The number of active pairs increased from 15 in 1990 to 17 in 1991. Nine of the 17 pairs were on the outer coast, five were in the San Juans, two were in the Columbia River Gorge, and one was in the Cascades. The 17 pairs produced 19 young.

The department worked with The Peregrine Fund (TPF), Wenatchee and Gifford Pinchot national forests, U.S. Fish & Wildlife Service (FWS), Boise Cascade, and Washington Water Power Company to release 21 captive-bred birds at four sites in the Yakima, Naches, Randle and Spokane areas. Fourteen of the released birds reached independence (67%). Two new release sites were established in the southern Cascades where there is an abundance of suitable nesting habitat. A pair of peregrines was seen for the first time at each of two previous release sites.

Surveys were conducted by department biologists in 1991 to search for new pairs of peregrines. A record seven new pairs were found: three on the Olympic Peninsula, two in the San Juans, one in the Columbia Gorge and one in the Cascades. The department provided nest site attendants at four sites to prevent human disturbance and record productivity data. To protect known sites, the department worked with cooperators to provide guidelines for development projects, close trails near nest sites, and enhance habitat at selected nest sites. Two sites were acquired for permanent protection.

Eggs were recovered from a failed nest on the outer coast and one in the San Juans for contaminant analyses. While peregrines in California and southern Oregon are still experiencing serious contamination problems, the Washington nesting population appears relatively healthy.

Peregrines were again observed using Seattle and Tacoma urban habitat. Nest platforms were installed in 1990 on skyscrapers, bridges, and a grain elevator in Seattle in a cooperative project with Woodland Park Zoo and the Falcon Research Group to enhance nesting opportunities for peregrines in Seattle. No nesting occurred in 1990 or 1991, but chances are good that peregrines will begin breeding in the urban environment in the next few years.

In winter 1991, a female peregrine that was released in the Columbia Gorge in 1989 by the department and TPF was found shot in Portland. The two-year old bird will be rehabili-

tated and released if possible in 1992.

The FWS combined three existing peregrine recovery plans for the western U.S. into one and the revised plan will be completed in 1992. The FWS will likely be recommending that western populations be downlisted from endangered to threatened in 1992.

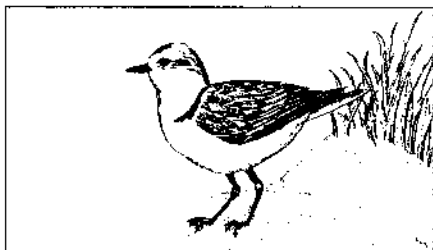


Sandhill Crane – Two of the six North American subspecies of sandhill crane occur in Washington: the lesser and greater sandhill crane. Breeding sandhill cranes were essentially extirpated from Washington by 1941. Lesser sandhills now occur as migrants in the spring and fall on both sides of the Cascades. The greatest numbers are seen in the fall at staging areas (traditional areas where large numbers gather) in the Columbia Basin and Ridgefield National Wildlife Ref-

uge in southwestern Washington. Thousands are also usually seen in pastures, fields and rangelands between the Columbia National Wildlife Refuge and Othello in the Columbia Basin.

Greater sandhill cranes also migrate through the state, but in smaller numbers. The only known nesting of greater sandhills in Washington occurs on the Conboy National Wildlife Refuge in south-central Washington. Three pairs nested in 1991, producing six young. Two of those survived to flight stage. The major cause of mortality was raven and coyote predation. It is suspected that some cranes may also nest in the higher elevation meadows of the Yakima Indian Reservation. Single birds were observed in 1991, but no nesting was found. The birds arrive in March and nest from April through June. Surveys by interagency biologists are planned for the 1992 nesting season.

Endangered



Snowy Plover – The U.S. Fish & Wildlife Service (FWS) published a proposal in 1991 to list the coastal populations of the snowy plover in Wash-

ington, Oregon, and California as a threatened species. A listing action is expected during 1992.

Washington's population remained critically low in 1991. There are only two known breeding locations in the state. Department biologists and a student intern from The Evergreen State College (TESC) found only two nesting pairs at one site. Neither pair appeared to successfully reproduce. A total of five adults were observed at the other known nesting area, and a single brood of two young at this site was the only indication of successful reproduction during 1991.

In Washington, plovers nest only on sandy or gravelly beaches and spits. Much of the historic snowy plover habitat in Washington was altered or severely impacted through development and beach stabilization projects. These losses have been exacerbated in recent years by a combination of severe winters, a reduction in wintering habitat in California and Oregon, and the degradation of remaining habitat in Washington. European beach grass, an exotic grass species, is spreading out over much of one traditional nesting area. The other nesting area has high recreational use.

Snowy plovers are vulnerable to disturbance such as people walking through the nesting area or vehicles driving on the beach. The birds are easily flushed from their nests, exposing the eggs to the elements and to predators such as gulls and crows. Vehicles may run over eggs, chicks and adults or flush adults from the nest, separating newly-hatched chicks from the adults.

An off-road vehicle (ORV) closure was implemented in 1987 to help protect the snowy plover population. This had a positive effect initially, and then an additional negative effect. With the restriction of ORV use, it became more attractive for recreational use such as fishing and camping. This has resulted in increased garbage which in turn attracts gulls and crows which prey on plover eggs. Student interns from TESC have monitored human and animal disturbance at the site for two consecutive years. People and dogs have been observed in nesting areas and potential nesting areas. Garbage is prevalent and gulls and crows, which are predators on snowy plover eggs, are present at all times. A recovery plan will be initiated during 1992 to address population objectives and strategies to restore and protect the population.



Upland Sandpiper – Upland sandpipers are widely distributed east of the Rocky mountains, but there are only a few nesting areas west of the Rockies. Each of these is used by a small number of breeding adults. Washington's east Spokane valley continues to support a few upland sandpipers during late spring and summer. In recent years, numbers have been perilously low and the birds have shifted from one area to another in response to a variety of habitat changes. Department surveys found 3 adults present during May and a landowner reported that 4 young were observed with adults later on.

Although the numbers of upland sandpipers in Washington have never been very large, they nested historically at other Eastern Washington sites, including Turnbull National Wildlife Refuge, Indian Prairie and western Walla Walla County near Touchet. The decline of the upland sandpiper in Washington and much of the West has been attributed to loss of habitat through agricultural practices, overgrazing, and land development activities.

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An important 240 acres of habitat used by the sandpipers was threatened during 1991 by a proposal to develop a gravel pit. The gravel pit project was not compatible with continued use of the area by upland sandpipers and was opposed for this and several other reasons at a county permit hearing. The project permit was denied, but it may be appealed in the future. The upland sandpiper will receive greater attention in the years to come. It is one of the top priorities for completion of a recovery plan which will outline steps to restore the species to a more secure status in the state.

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Spotted Owl – There were a number of important developments with spotted owl management and conservation in 1991. Two significant court cases were decided in a Western District Court in Seattle. In February, the court ruled that the U.S. Fish and Wildlife Service (FWS) should have designated critical habitat for the spotted owl when the species was listed in June 1990. The FWS published a proposed rule to designate critical habitat in May 1991, and after a

public comment period, revised the critical habitat rule in August 1991. The final rule was published in January 1992. The rule proposed 6.9 million acres be designated critical habitat, but removed all state and private land from consideration.

In May 1991 the same court ruled that the U.S. Forest Service (FS) had to revise its standards and guidelines to ensure the northern spotted owl's viability and develop an environmental impact statement (EIS) on management for the spotted owl by March 1992. The FS issued a draft EIS in September 1991, and the final is expected by the March deadline ordered by the court. The preferred alternative in the draft EIS is the conservation strategy developed by the ISC. The court also ordered all timber sales in spotted owl habitat halted until the EIS is finalized.

Early in 1991, the Northern Spotted Owl Recovery Team began developing a recovery plan for the species as required in the Endangered Species Act. A draft recovery plan is expected in January 1992. Department of Wildlife (WDW) staff played important roles in the development of both the ISC strategy and the recovery plan. The ISC strategy was well received by the scientific and environmental community as a minimum level for maintenance of northern spotted owl populations in the foreseeable future.

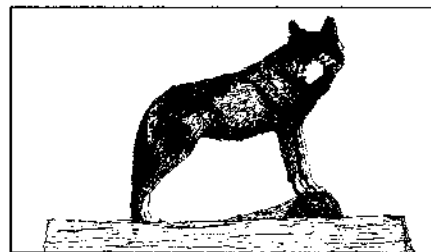
The Department's Nongame Data System continued to update, refine and improve the computerized statewide spotted owl database. The Department hired two additional staff to assist with the database with funds provided by the FWS. All spotted owl data was reviewed to determine the location of owl activity centers. A total of 700 historic and active spotted owl activity centers have been identified statewide. These data are used extensively for implementation of the FWS take guidelines and to evaluate impacts of forest practices on federal, state, and private lands.

A great deal of field work on the spotted owl continued during 1991 by both federal and non-federal landowners.

This resulted in discovery of almost 100 previously unknown territories throughout Washington.

The FS initiated a juvenile spotted owl dispersal study on federal and private lands in the eastern Cascades of Washington during fall 1991. Data on juvenile spotted owls is important in determining the appropriate distances between conservation areas to allow for normal interchange between subpopulations. A study on spotted owl nest site characteristics in the eastern Cascades of Washington was completed in 1991. The study, conducted by a University of Washington graduate student, gave the first in-depth look at structural characteristics of forest stands utilized for nesting. It found a close ecological relationship between the spotted owl and the northern goshawk in eastern Washington. The most common nests used by spotted owls were originally made by northern goshawks.

The Department of Natural Resources (DNR) continued conditioning forest practice applications on state and private lands to implement guidelines developed by FWS to avoid "take" of spotted owls. The department hired an additional biologist in 1991 to work on spotted owl management issues. Department staff assisted DNR in development of survey guidelines, review of surveys conducted on non-federal lands, and identification of suitable spotted owl habitat in forest practice applications. The Department conducted workshops and training sessions on survey procedures and techniques, and assisted private landowners and consultants in survey planning.



Gray Wolf – Natural recovery of gray wolves is in the early stages in Washington. Once relatively common, the federally endangered gray wolf

was essentially extirpated from Washington by the early 1900s as a result of trapping for pelts and predator control.

Breeding wolves were discovered in Washington in 1990 for the first time since the early 1900s. Wolves were once again confirmed in the North Cascades in spring and summer 1991. Pack activity was documented in the North Cascades National Park, Wenatchee National Forest, and Lake Chelan National Recreation Area.

The U.S. Fish and Wildlife Service (FWS) provided funding to the department to initiate research studies and surveys for wolves in 1991. Research activities focused on locating wolves in the North Cascades. Howling surveys to locate wolves were also conducted during 1991 by the Wenatchee and Okanogan national forests and by volunteers working with Wolf Haven, a non-profit organization. Wolf Haven also participated in

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public education activities regarding wolf conservation and wolf identification training for agency biologists.

The Washington Wildlife Commission took steps in 1991 to protect the gray wolf in areas known to be used in the Cascades by closing the areas to coyote hunting during the big game hunting season. The temporary restriction was enacted to reduce the potential that wolves could be accidentally killed by hunters mistakenly identifying them as coyotes.

An Interagency Gray Wolf Steering Committee was formed during 1991 to facilitate wolf conservation and management. A Research and Management Committee and an Information and Education Committee assist the Steering Committee. Initial objectives of the Committee are to develop a control plan and a monitoring plan. The Steering Committee is developing a management plan for the wolf in Washington because the existing Northern Rocky Mountain Wolf Recovery Plan does not include most of Washington. A decision will be made in 1992 by the FWS whether to include Washington in a revision of the Northern Rocky Mountain plan or to develop a separate recovery plan for Washington.



Grizzly Bear—
The Department of Wildlife (WDW) works with other state and federal agencies under the Interagency Grizzly Bear

Committee (IGBC) to recover and manage the state endangered and federally threatened grizzly bear in Washington. Recovery efforts for this species in 1991 focused on research, management, education, law enforcement and policy issues.

Two of the six ecosystems identified in the U.S. Fish & Wildlife Service (FWS) Grizzly Bear Recovery Plan as potential areas for grizzly bear recovery in the U.S. - the Selkirk Mountains and the North Cascades - are in Washington. The Selkirk ecosystem is a recovery area and the North Cascades has been an evaluation area.

A five year evaluation of the North Cascades area was conducted to determine if it was capable of supporting a viable population of grizzly bears. Eight sets of grizzly bear tracks, including three in 1991, were documented in the North Cascades during the five year evaluation. One grizzly bear skull and a grizzly bear food cache were also found during the study. Department research biologists evaluated a total of 205 grizzly bear observation reports in the North Cascades; 20 of these were classified as confirmed grizzly bear sightings, tracks, food caches, or skulls. These observations and tracks

indicate that there is a small, resident population of grizzly bears in the North Cascades. The habitat and population evaluation was completed in fall 1991 and the results were reviewed by a technical team of grizzly bear biologists. The study results and the technical team review concluded that the North Cascades area was capable of supporting a viable population of grizzly bears.

The results were presented to the IGBC in December 1991. After consideration of the evaluation and the findings of the technical team, the member agencies agreed to pursue recovery of the bear in the North Cascades area. To begin the recovery process, they appointed a working group chaired by the state and composed of U.S. Forest Service, National Park Service, FWS, and British Columbia representatives. The working group will develop a plan to address recovery for the North Cascades and will develop a public involvement process.

A petition was submitted to FWS during 1990 to have the grizzly bear in the North Cascades uplisted to an endangered, rather than threatened, species. In 1991, the Service found that the status of the bear in the North Cascades warranted uplisting, but was precluded until the results of the five-year evaluation were completed.

Recovery activities in the Selkirk Ecosystem centered on law enforcement to prevent illegal killing of grizzlies and continued research on radio-collared grizzly bears. Six grizzlies are known to have been killed illegally in the Selkirk Ecosystem since 1983. The loss of any bears from this small population of about 30 bears can hamper recovery efforts in the Selkirks. To address this issue, federal endangered species money was allotted in 1990 and again in 1991 for enforcement activities in the Selkirks. Money was spent to equip WDW enforcement personnel with camera monitoring devices to record vehicle traffic on closed roads and to fly reconnaissance in the recovery zone.

The Washington Wildlife Commission also acted in 1991 to provide additional protection to grizzly bears in the recovery area. They closed the area to black bear baiting and hound hunting to protect against the possibility of a grizzly bear being accidentally killed due to mistaken identity and to reduce the possibility that baiting might contribute to garbage food habituation. No known cases of grizzly bear mortality were documented in the Selkirks during 1991.

Five radio-equipped grizzly bears were monitored in the Selkirks to prevent illegal killing and to provide valuable habitat use, den location and food preference data. Efforts to promote grizzly bear recovery in the Selkirk Ecosystem in 1992 will include continued monitoring and protection as well as habitat improvements, and public education.

In 1990 the FWS revised the 1982 Grizzly Bear Recovery Plan and the draft was available for public comment during 1991. More than 2,000 comments were received which resulted in substantive changes to the plan. A second draft,

Endangered

incorporating these changes, will be released by FWS for public review in early 1992. The final revision will be completed in mid-1992.

The department and FWS continued to be questioned about false rumors and misconceptions that bears would be transplanted into the North Cascades. *There are no plans to introduce grizzly bears into the North Cascades*, but it continued to prove difficult to correct these misconceptions once they got started.



Sea Otter – Sea otters, which once ranged from the Columbia River north to Cape Flattery, were extirpated from Washington by the early 1900's as a result of overharvesting for the fur trade. Following the translocation of individuals from Amchitka Island, Alaska in 1969 and 1970, they are once again found in the waters of Washington's outer coast from Destruction Island northward to Cape Flattery. They can be sighted

off the coast, particularly in the areas around Giants Graveyard, Rialto Beach, Cape Johnson, Yellowbanks, Sand Point and Cape Alava. In these areas, sea otters can be seen foraging in nearshore waters or rafted together in kelp beds to socialize or rest.

In July 1991, biologists from the Department of Wildlife and U.S. Fish and Wildlife Service (FWS) conducted annual aerial and ground surveys of this area as part of ongoing monitoring of the growth and status of this population. The resulting count of 276 individuals in Washington's sea otter population was an increase of 64 animals above 1990 surveys. This population appears healthy and is expected to continue to grow and re-occupy its former range along the Olympic Peninsula coast.

Although much of the sea otter's current range is protected as part of the Olympic National Park and Washington Islands National Wildlife Refuge, concern for this species in Washington continues due to the relatively small population size, its limited range, and the extreme vulnerability of sea otters to oil spills. Additionally, with continued population growth and range expansion, conflicts may result from interactions with coastal shell fisheries and salmon gillnets.

One of the potential threats to Washington's sea otter population was realized in late July, when the Tenyo Maru oil spill occurred at the entrance to the Strait of Juan de Fuca and spread southward along the Olympic Peninsula coast. This spill resulted in the oiling of Washington's coastal beaches

and impacted a variety of marine wildlife, including killing thousands of seabirds. Luckily, in this instance, due to the size and trajectory of the spill, the effect on the sea otter population appeared to be minimal with only a few individuals known to be impacted.



Columbian White-Tailed Deer – The Columbian white-tailed deer population reached a point of population stability in 1991.

The recovery goals for downlisting to threatened status were to attain a population of at least 400 animals in three or more viable populations, with two of the viable populations in secured habitat. As a result of intensive management efforts, the population is now estimated to number at least 700 animals, with viable populations in three locations: the Columbian White-Tailed Deer National Wildlife Refuge, the Tenasillahe Island unit of the refuge, and the Westport area in Oregon. Two of the populations, the refuge mainland and Tenasillahe Island, are considered to be in secure habitat. Acquisition of a third secure habitat area will be necessary to meet delisting goals. Because the downlisting recovery goals have been met, the U.S. Fish and Wildlife Service is preparing recommendations to downlist the deer to threatened status.

One facet of the Columbian white-tailed deer recovery program has been to move elk from the refuge. Elk compete with the deer for food so it has been important to reduce the number of elk in the white-tailed deer habitat.

In the past, the Puget Island deer population has been the subject of controversy because of conflicts between agriculture and the deer. Cottonwood plantations, a relatively new land use on Puget Island, are likely to provide the kind of escape cover for the deer that will promote growth of the deer population. Landowners and federal wildlife agencies are working together to anticipate problems that may arise. Landowners erected electric fences around crop areas during 1991 and this appears to be the best means of limiting deer damage to crops.

Endangered



Mountain Caribou – The Selkirk mountain caribou herd, which had once dwindled to only 29 animals, increased to approximately 60

caribou in 1991. The mountain caribou disappeared from the continental United States except for a small remnant population in the Selkirk Mountains of northeastern Washington, northern Idaho, and southern British Columbia. The species was state listed as endangered in 1982 and federally listed as such in 1984.

The Department of Wildlife (WDW) works with Idaho, the U.S. Forest Service, U.S. Fish & Wildlife Service (FWS), and British Columbia to recover the caribou. A department biologist is a member of the Mountain Caribou Recovery Team. Recovery efforts have focused on increasing herd numbers and protecting both the animals and their habitat.

Caribou have been transplanted from British Columbia in an effort to increase herd numbers. A total of 60 caribou, 24 in 1987, 24 in 1988, and 12 in 1990 have been captured in British Columbia and released into the eastern portion of the Selkirk ecosystem in Idaho. Transplanted caribou have been radio-collared in a cooperative research study to determine home ranges, habitat needs, causes of deaths in calves and other information. Monitoring programs are now being implemented to evaluate the success of the transplants and to determine future management plans.

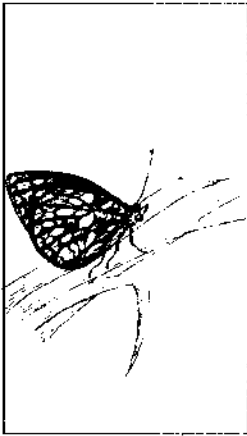
One result of the transplant effort has been a gradual improvement in calf survival. Over the past four years calf production has been between 12 and 15%. With most caribou herds, below 10% recruitment indicates a declining population; 11 to 17% means a stable population, and over 18% recruitment indicates an increasing population. Biologists are hopeful that late winter (February/March) surveys will show increased calf production for the summer 1991 calving season.

There was only one adult mortality during winter and summer 1991. A male caribou died in June 1991 as a result of natural causes. During previous years, the mortality rate for the transplanted adult caribou exceeded that reported for stable populations. Twelve animals were lost from the transplanted population during summer 1990 as a result of predation (by bears and mountain lions), accidents, including collisions with motor vehicles, and illegal killing. There was one illegal killing in Washington in 1988 and one in Idaho in 1990. Biologists had hoped that as the caribou became more

familiar with the new habitat the mortality rate would be reduced.

In addition to the herd established in the Selkirk crest, another herd has been established in southeast British Columbia as a result of the transplant. Caribou traveled widely in northeastern Washington during the year with most animals returning to the central Selkirk crest area before the mating season in September-October. The ongoing monitoring program has identified two caribou staging areas within this area. The FWS is revising the mountain caribou recovery plan and the draft is expected to be available for public review in 1992.

Threatened

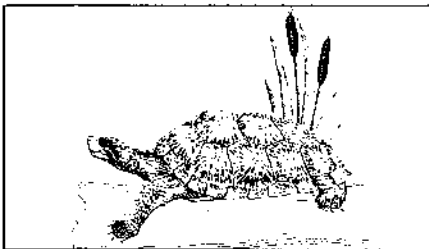


Oregon Silverspot Butterfly – The Oregon silverspot butterfly is extremely rare in Washington. A single butterfly was sighted in 1990 for the first time since 1986, but no silverspots were seen during 1991 surveys. This butterfly is restricted to the Long Beach peninsula, in salt-spray, dune meadow habitat where good patches of violets occur. The Department of Wildlife acquired 50 acres of land in 1991 which will provide larval meadow habitat and adult shelter and nectar

habitat in the surrounding forest.

In 1990 the department began a recovery program in cooperation with the U.S. Fish & Wildlife Service and Washington State Parks. Degraded habitat is being rehabilitated so that the butterfly population can be augmented. Experiments in Oregon indicate that augmentation is a feasible recovery strategy for this species. In the first year of the project, dune meadow habitat was mowed to encourage the early blue violet to grow. The violet is crucial to the butterfly's survival since it is the only plant upon which the larvae feed and develop. The areas are mowed in spring to remove a heavy brush layer and then in June to clear the invading bracken fern and again in late October to remove brush regrowth. A significant violet response is not expected until the third year of treatment.

Additional recovery efforts include habitat inventories, surveys for butterflies and identification of suitable habitat for acquisition. The status of the butterfly will be reviewed by the department in 1992 for reclassification to endangered status.



Western Pond Turtle – The western pond turtle population in Washington is found in only three locations in Klickitat and Skamania coun-

ties and numbers fewer than 100 individuals. Historically, western pond turtles were also distributed throughout southern Puget Sound lowland lakes and ponds but are now extirpated from the region. The reasons for the decline are not well understood, but the most important causes are thought to be habitat loss through wetland development and removal of shoreline vegetation and predation on juveniles by intro-

duced species such as the bullfrog and bass.

A disease outbreak in summer 1990 killed at least 36 turtles, which was nearly half the population at the two primary population locations. A number of cooperators and experts in a variety of fields assisted in a massive effort to understand and control the disease. Veterinarians at the Woodland Park Zoo (WPZ) directed the treatment of infected turtles and specialists in Florida and Germany attempted to determine the pathogen that caused the disease. Sick turtles were treated at the Woodland Park and Pt. Defiance zoos and rehabilitated at the Department's South Puget Wildlife Area. The department contracted with toxicology experts at Western Washington University to analyze the lake and ponds for possible contamination. Results found elevated levels of aluminum at one site and depressed levels of dissolved oxygen at the other, but neither of these were related to the disease outbreak.

Fourteen turtles that were treated and survived the disease were released back to the wild in summer 1991. A portion of the released turtles were instrumented with radio-transmitters to monitor their success. Two turtles were found dead as a result of suspected raccoon predation. Some of the monitored turtles left the ponds in the fall and moved onto land where they burrowed under leaf litter. They hibernated during the late fall/winter in burrows in the ground. One turtle was also instrumented by the Center for Wildlife Conservation (CWC) with a temperature transmitting radio to enable monitoring of temperature during hibernation. This information will be used to assist in the captive breeding program. Monitoring will continue during 1992.

Turtles at the sites where the disease outbreak occurred were monitored in spring/summer 1991. No recurrence of the disease was observed. At least 40 turtles at the sites survived the winter and did not exhibit any signs of the disease. It remains unknown how the disease was introduced into the population. An infected captive turtle may have been released into the system and spread the disease to the wild. Or, turtles may have become stressed by factors such as toxic contamination; the cold, wet spring conditions that occurred in 1990; or handling and moving during research activities.

The department's objectives for managing and recovering the turtle population are to: 1) monitor the population for any signs of the disease, 2) protect the remaining wild population, 3) increase numbers and distribution, and 4) survey for new populations. A captive breeding project was initiated with the WPZ and CWC. Ten adult turtles were obtained from zoos, an Oregon turtle rehabilitator, and the Oregon Department of Fish and Wildlife. The turtles were hibernated during winter 1991-92 and will hopefully breed in 1992.

The department, WPZ, and CWC also conducted a "head start" program to enhance the survival rates of young turtles. Research in 1990 located, for the first time in Washington, six pond turtle nests. Twenty-three hatchling turtles from these

Threatened

nests were raised in the "head start" program. By summer 1991, 14 of the hatchlings were too large to be eaten by bullfrogs and fish. They were released back to the wild. Nine others that were smaller were held over for the winter, hibernated, and will be released in summer 1992.

The CWC also initiated a project with a University of Washington graduate student to do DNA fingerprinting analysis of Washington and Oregon pond turtles. These studies will assist in captive breeding efforts and in determining appropriate genetic stock for reintroductions.

Surveys were conducted in spring/summer 1991 by state agencies and private individuals throughout the Columbia Gorge and at selected sites in southern Puget Sound. No new populations of turtles were found on the Washington side of the Gorge, but a new population was discovered on the Oregon side of the river. One or more individuals were observed at a historic location in southern Puget Sound.

The status of the pond turtle will be reviewed by the department in 1992 for reclassification to endangered status. Western pond turtles have declined throughout their range and a petition to list the species under the federal Endangered Species Act is expected in 1992.



Ferruginous Hawk – Population numbers of ferruginous hawks in Washington are thought to be holding steady at reduced levels. Management of this species involves protecting existing nesting habitat, creating artificial nesting sites, monitoring the population and protecting nest sites from human disturbance.

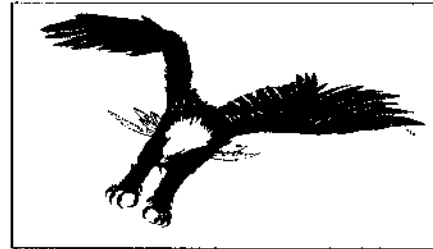
Numbers of nesting birds tend to fluctuate from year to year, perhaps coinciding with prey availability. An extensive survey during

1987 found 62 nesting pairs of ferruginous hawks after searching 103 historic territories. During 1991, few nesting surveys were conducted. A comprehensive survey is planned in 1992.

The Bureau of Land Management (BLM) surveyed portions of their lands in Lincoln County and found that cliff platforms built by a volunteer wildlife enthusiast and installed by BLM and department biologists had been well-received. Great horned owls used a cliff platform previously used by ferruginous hawks. The ferruginous hawks shifted to a rock nest site. Another cliff platform was being used by a pair of ferruginous hawks for the first time.

Cooperative habitat enhancement efforts in the Juniper

Forest have paid off equally well. Two out of six triangular tree platforms were used by nesting ferruginous hawks in 1991. Three others were used by red-tailed hawks and ravens. The tree platforms are fastened to trees that lack branch structure suitable to support a nest. This technique has transformed these trees into functional nest supports for several species. These artificial structures can help maintain populations where nesting habitat has been lost.



Bald Eagle – The bald eagle population in Washington continued to improve during 1991. Biologists conducted productivity surveys for

the eleventh straight year and documented 444 occupied nests, including 18 in eastern Washington. This was an increase of 44 new nests since the 1990 surveys. Statewide productivity fell slightly below the recovery goal of at least one young per occupied nest. The lower Columbia River was, once again, an unproductive area with only 0.14 young per occupied nest. Reproduction on the lower Columbia River has been consistently low and may be related to contaminants in the river system.

Washington has one of the largest populations of wintering bald eagles in the lower 48 states. In the past, the department coordinated midwinter bald eagle surveys by hundreds of agency staff and volunteers. The survey was discontinued in 1991 due to demands on staff time that did not allow for coordination of this effort. The department will develop a scaled-down annual survey with standardized routes for implementation in January 1993.

While the numbers of eagles in our state are increasing, there are concerns about the impacts of development on bald eagle nesting success. State Bald Eagle Protection Rules require a site management plan for any development proposed in bald eagle nesting or wintering habitat. Department biologists have worked with landowners to develop 152 plans to date. The need for plans increased to the point that a second biologist was hired in 1991 to develop plans for sites on the Olympic Peninsula.

The bald eagle rules also established the Bald Eagle Oversight Committee (BEOC), a citizen review board, to mediate disputes regarding the management of specific sites. The BEOC reviewed several cases in 1991 and all but one were resolved. The Northwest Renewable Resources Center, under grants from the departments of Wildlife and Ecology, reviewed the status and mechanisms of bald eagle habitat protection in Washington in a 1991 report "Living with Eagles: Status Report and Recommendations".

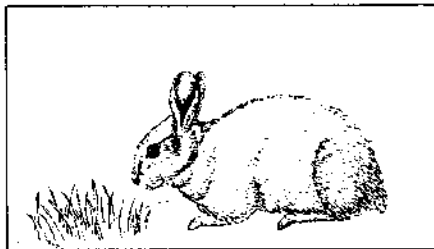
Threatened

The department funded two Cooperative Volunteer Wildlife Projects in 1991 that address impacts of development on eagles in Washington. In one project, the San Juan Preservation Trust will monitor bald eagle behavior and habitat use at 30 bald eagle nesting territories during 1992 in the San Juan Islands. The data will be used to develop more comprehensive territory management plans. In the second study, a University of Washington student is evaluating the effects of habitat alterations on bald eagle nesting success on the Olympic Peninsula and Puget Sound. This work is the beginning of a long-term evaluation of the impact of our management plans on eagle nesting success. The department is hiring a research biologist in 1992 to determine and monitor impacts of the current site management plans on bald eagles.

Four shot or injured eagles were treated at the Woodland Park Zoo during 1991 and released back to the wild. One was an eagle which suffered a broken leg two years ago when its nest tree was cut down. It came back in 1991 with a gunshot wound, was treated and released again.

The prospects for bald eagle recovery in Washington are excellent. The statewide recovery goal of 275 nesting pairs has been met, but the distribution goals have not yet been achieved. The goals for numbers of nesting pairs have been achieved in seven of the 11 recovery zones established for Washington, but additional nesting pairs are needed in at least two more zones.

Bald eagle populations throughout the country are steadily improving. As a result, the U.S. Fish & Wildlife Service is evaluating the status of the bald eagle for possible downlisting to threatened status. The Pacific States Bald Eagle Recovery Team has been reconvened to begin the 5-year review of the existing recovery plan.



Pygmy Rabbit — Pygmy rabbits are found in only six known locations in Washington, all within Douglas County. The majority of the known popula-

tion occurs in just one of the locations. This important site is under study by a University of Washington graduate student who is investigating pygmy rabbit population size, genetics, home range, and habitat characteristics. One of the research objectives is to determine how many pygmy rabbits utilize an active burrow system. This will allow burrow counts to be used for population estimates in the future.

Department biologists have conducted annual surveys since 1988 to locate new sites and determine current status. Based on 1991 surveys, the population is now thought to number more than 500 rabbits at the six sites. Prior to 1987, pygmy rabbits hadn't been verified in Washington for many years.

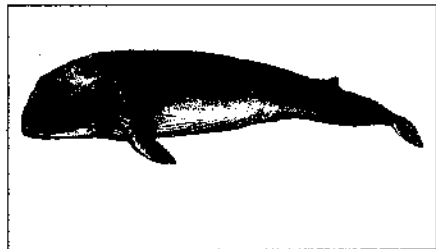
During 1991, the department contracted the Soil Conservation Service to analyze soil conditions in pygmy rabbit areas. The results suggest an important relationship between soils and pygmy rabbit distribution. This information is essential to a recovery program that may involve restoring pygmy rabbit habitat to expand populations. It also aids biologists in searches for other pygmy rabbit areas.

The primary cause of the decline of the pygmy rabbit in Washington was habitat loss. Pygmy rabbits prefer areas of dense sage where the soil is soft enough to dig burrows. With settlement, these types of lands in Eastern Washington were rapidly converted to agricultural uses. Sagebrush removal and over-grazing also contributed to the decline. There are few pockets of habitat left.

Department priorities to recover this species are to protect existing habitat, restore potential habitat and conduct surveys to locate new populations. Proposals may also be considered to increase numbers and distribution through reintroductions in suitable habitat in northeast Washington. The pygmy rabbit is a state Candidate species for uplisting from its current threatened status to endangered status and became a federal Candidate 2 species in 1991. A status report will be prepared by the department during 1992 which will be used by the Washington Wildlife Commission to make a final listing decision.

Other Species Classified as Endangered or Threatened

Whales and sea turtles are managed by international agreements and federal and state agencies. Human exploitation has caused the decline of most of these species.



Whales – Six whale species found in Washington are protected as state- and federally-listed endangered species. These include the gray,

sperm, fin, sei, blue, hump-backed and right whales. Except for the gray whale, recovery of these species has been slow and they are rarely observed in Washington waters. Gray whales have recovered to historic population levels and now number more than 20,000 individuals. As a result, the National Marine Fisheries Service has proposed that the species be delisted.

Gray whales occur annually off the Washington coast during spring and fall migrations. Some individuals remain as summer residents and are regularly seen near Kalaloch, Cape Alava, Neah Bay, Port Angeles, Dungeness, and in southern Puget Sound. This species is the most frequently stranded whale on Washington's beaches. There were 12 gray whale strandings reported in Washington in 1991. Whale watching excursions for this and other whale species are offered each year from Westport and the San Juan Islands.



Sea Turtles – Three state and federally listed species of sea turtles – loggerhead, leatherback and green – visit Washington waters, but rarely

come ashore unless sick or injured. The leatherback is classified as an endangered species and the loggerhead and green sea turtles are threatened species.

The most common sea turtle off Washington's coast is the leatherback, a black flexible-shelled turtle that can be six feet in shell length. Their primary food is jellyfish. They are the most wide-ranging of all living reptiles and are more tolerant of cold waters than hard-shelled sea turtles. Leatherbacks nest on beaches in southern latitudes. The largest known nesting

area is on the Pacific coast of Mexico. Collection of its eggs for food, primarily in the western Pacific Ocean, is a major threat to this species.

The green sea turtle is the most common hard shell sea turtle found off Washington's coast. Like many other tropical species, unusual warm ocean currents off our coast can bring the green sea turtle to our shores. Two live green sea turtles found beached on the Washington coast during winter 1989-90 were nursed to good health and released near San Diego, California. This species nests on many islands in the tropical Pacific Ocean, including the Hawaiian and Marshall islands, and the Philippines. While their eggs have long provided for subsistence harvest, recently developed markets for skin and other products from the turtles has led to near collapse of some populations.

The loggerhead sea turtle is rare in temperate waters. Washington is as far north as this species has ever been found. A juvenile loggerhead was found on the beach at Ocean Shores in December 1990. This animal was cared for at Point Defiance Zoo, the Seattle Aquarium, and Sea World in San Diego. It was released near San Diego during July 1991. Adults grow to four feet in shell length. They feed on marine animals such as crabs, snails, clams, and shrimp. The loggerhead nests on beaches in the Pacific Ocean around Australia, China, and Japan. Recently, thousands of juveniles were discovered feeding on red crabs off Baja Mexico. The causes of recently observed declines at Pacific Ocean nesting beaches are not known.

The first Olive Ridley sea turtle ever found in Washington washed ashore near Copalis in November 1989. This carnivorous, hard-shelled sea turtle is abundant in the tropical Pacific Ocean and nests in Mexico, Costa Rica, Malaysia, and Thailand. Synchronized nesting may occur and can involve as many as 150,000 females. Some populations are on the verge of collapse, however, because of massive egg collecting.

1991 Population Status Scorecard

STATE	FEDERALLY LISTED	POP. CRITICAL**	DECLINING	STABLE	IMPROVING	UNDETERMINED
ENDANGERED SPECIES						
American White Pelican	✓					
Brown Pelican	✓				✓	
Aleutian Canada Goose	✓				✓	
Peregrine Falcon	✓				✓	
Sandhill Crane	✓					
Snowy Plover	✓					
Upland Sandpiper	✓					
Spotted Owl	✓		✓			
Gray Wolf	✓					
Grizzly Bear	✓	✓				✓
Sea Otter	✓				✓	
Columbian White-tailed Deer	✓				✓	
Mountain Caribou	✓			✓		
THREATENED SPECIES						
Oregon Silverspot Butterfly	✓	✓				
Western Pond Turtle	✓	✓				
Ferruginous Hawk	✓		✓			
Bald Eagle	✓			✓		
Pygmy Rabbit	✓	✓				

*Whales and sea turtles not included in rating; these are managed by Federal agencies.

** POPULATION CRITICAL
Species no longer breeding in Washington or population critically vulnerable due to low numbers or poor distribution.

Concerned Washington Residents Can Help By:



Washington Department of Wildlife
Nongame Program
600 Capitol Way N
Olympia, WA 98501-1091

- Purchasing personalized license plates through the Department of Licensing.
 - Establishing management agreements or conservation easements with the assistance of the Nongame Wildlife Program or private conservation groups for protection of wildlife habitat.
 - Submitting observations of special species and participating in surveys and censuses such as marbled murrelet volunteer surveys.
 - Contacting the nongame biologist in your region or a member of the Nongame Program's advisory council if you have specific suggestions or concerns.
 - Donating funds or property to the Department of Wildlife.
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